SUPPORT FOR THE AMENDMENTS

The present amendment cancels claims 2, 8, 14, 17 and 18, amends claims 1, 3, 5-7, 9, 10, 12, 15 and 16, and adds new claims 21-23.

Claims 1, 3, 5-7, 9, 10, 12, 15 and 16 have been amended to place these claims in a better condition for allowance. Support for these amendments is provided by the originally filed claims and specification.

Support for the amendment to claims 1, 5, 6 and 15, and newly added claim 22, is found at specification page 10, lines 7-19.

Support for newly added claims 21 and 23 is found at specification page 20, lines 21-23, page 21, lines 1-7, Tables 1 and 2, and Examples 1-7, 10 and 22.

It is believed that these amendments have not resulted in the introduction of new matter.

REMARKS

Claims 1, 3-7, 9-13, 15, 16 and 19-23 are currently pending in the present application. Claims 2, 8, 14, 17 and 18 have been cancelled, claims 1, 3, 5-7, 9, 10, 12, 15 and 16 have been amended, and new claims 21-23 have been added, by the present amendment.

Claims 4, 6, 15 and 16 stand withdrawn from consideration by the Examiner as being directed to a non-elected invention. Applicants respectfully traverse the withdrawal of claim 4 by the Examiner as being directed to a non-elected invention since this claim is clearly encompassed by and drawn to the elected invention (See e.g., specification at page 9, last line and claim 4 as originally filed, and page 10, lines 1-19; pages 2 and 3 of the Restriction and Election of Species Requirement dated May 14, 2008; and pages 1 and 2 of the Response to Restriction and Election of Species Requirement submitted July 14, 2008).

The rejections of: (1) claims 1, 9-12, 19 and 20 under 35 U.S.C. § 102(b) as being anticipated over Williamson (U.S. Patent 6,274,041); (2) claims 1, 7, 9-12, 19 and 20 under 35 U.S.C. § 102(b) as being anticipated over Sekine (U.S. Patent 5,997,829); (3) claims 1, 3, 5, 7, 9-12, 19 and 20 under 35 U.S.C. § 102(b) as being anticipated over Lisenko (U.S. Patent 5,639,550); (4) claim 13 under 35 U.S.C. §§ 102(b) and/or 103(a) as being anticipated and/or obvious over each of Williamson, Sekine and Lisenko; and (5) claim 3 under 35 U.S.C. § 103(a) as being obvious over Williamson, are respectfully traversed in part, and obviated by amendment in part, with respect to claims 1, 3-7, 9-13, 15, 16 and 19-23, which incorporates the limitation that the particulate compound is selected from the group consisting of an amorphous titanosilicate particulate compound, an A-type zeolite particulate compound and an X-type zeolite particulate compound into claim 1.

The present invention is directed to a composite absorbent, a method for producing the composite absorbent, a water purification material comprising the composite absorbent, and a water purifier comprising the water purification material (See e.g., page 1, lines 5-7, page 6, lines 9-13 and 19-22, page 7, lines 1-2, 11-16 and 23, page 8, lines 1-4).

The composite adsorbent according to the present invention comprises, as separate and distinct components, a composite powder and at least one adsorptive substance. The claimed composite powder comprises a particulate compound and a plastic powder adhered to the particulate compound, wherein the particulate compound is selected from the group consisting of an amorphous titanosilicate particulate compound, an A-type zeolite particulate compound and an X-type zeolite particulate compound. The at least one adsorptive substance is selected from the group consisting of powdery, particulate and fibrous substances.

As discussed in the present specification and shown by the comparative experimental data presented therein, the composite absorbent of the present invention exhibits high permeability and reduced resistance to a liquid being transmitted therethrough, is excellent in removing various impurities, including, but not limited to, heavy metals, chlorine and trihalomethanes (THM) from a liquid and provides a purified liquid having high clarity (See e.g., page 1, lines 19-21, page 2, lines 1-5, page 5, lines 12-23).

Williamson describes an integrated filter for removing impurities from a fluid stream comprising: a first element for removing impurities by physical absorption; and a second element for removing impurities by electrokinetic absorption (See e.g., abstract, column 1, lines 21-27, claim 1).

The claimed composite powder of the present invention is fundamentally different from the first element of Williamson. Unlike the claimed composite powder of the present invention, which comprises a particulate compound and a plastic powder adhered to the particulate compound, wherein the particulate compound is selected from the group consisting of an amorphous titanosilicate particulate compound, an A-type zeolite particulate compound and an X-type zeolite particulate compound, the first element of Williamson comprises an absorbent (e.g., activated carbon or zeolite) in the form of granules or particles and a thermoplastic binder (See e.g., specification at page 1, lines 11-15, page 6, lines 9-13, page 9, lines 3-6 and 11-13, page 10, lines 7-23, page 11, lines 1-5; and claims 1, 5, 6, 9, 11 and 22; and Williamson at column 2, lines 30-40, column 5, lines 20-64, column 7, lines 7-21, claims 5 and 6).

The claimed adsorptive substance of the present invention is fundamentally different from the second element of Williamson. During patent examination, the claims must be given their broadest reasonable interpretation consistent with the specification. See e.g., *Phillips v. AWH Corp.*, 75 USPQ2d 1321 (Fed. Cir. 2005). Unlike the claimed adsorptive substance of the present invention, the second element of Williamson is a charge modified fibrous thermoplastic polymer (e.g., polyolefin) (See e.g., specification at page 15, lines 19-23, and page 16, lines 1-5; and claims 1 and 12; and Williamson at column 2, lines 52-55, column 5, lines 65-67, column 6, lines 1-52, column 8, lines 8-14, claims 7-10).

Sekine describes an air purifying material comprising composite particles bound to a fibrous substrate, wherein the composite particles comprise: particles of a metal and/or metal oxide (e.g., manganese oxide and/or copper oxide); absorbent particles (e.g., activated carbon); and thermoplastic resin particles (e.g., polyethylene) bound to both the metal and/or metal oxide particles and the absorbent particles (See e.g., abstract, column 2, lines 47-55, column 3, lines 14-26, 38-47 and 53-66, column 6, lines 15-23, Fig. 1 and 3, Examples 1-13 and claims 1-3).

Unlike the claimed composite adsorbent of the present invention, which comprises a composite powder and at least one adsorptive substance as separate and distinct components, the air purifying material of Sekine comprises composite particles having thermoplastic resin particles bound to both the metal and/or metal oxide particles and the absorbent particles as a single combined component. Therefore, contrary to the absorbent particles of Sekine which are an integral part of the composite particles described therein, the composite powder and adsorptive substance of the present invention are separate and distinct.

The claimed composite powder of the present invention is fundamentally different from the composite particles of Sekine in that Sekine fails to disclose or suggest that the metal and/or metal oxide particles are a particulate compound selected from the group consisting of an amorphous titanosilicate particulate compound, an A-type zeolite particulate compound and an X-type zeolite particulate compound, as presently claimed.

Lisenko describes a composite particulate material for removing heavy metals from aqueous solutions, wherein the composite particulate material comprises: a particulate primary material (e.g., hydrated metal oxide and/or zeolite); a particulate support material (e.g., granular activated carbon); and a particulate binder material (e.g., polyethylene and/or polypropylene) bound to both the particulate primary material and the particulate support material (See e.g., abstract, column 1, lines 41-49, column 2, lines 2-4, column 3, lines 20-27 and 51-65, column 4, lines 6-13 and 35-50, column 5, lines 3-6, column 6, lines 21-23 and 38-47, claims 1-8).

Unlike the claimed composite adsorbent of the present invention, which comprises a composite powder and at least one adsorptive substance as separate and distinct components, the composite particulate material of Lisenko comprises a particulate binder material bound to both the particulate primary material and the particulate support material as a single combined component. Therefore, contrary to the particulate support material of Lisenko which is an integral part of the composite particulate material described therein, the composite powder and adsorptive substance of the present invention are separate and distinct.

Lisenko also fails to disclose or suggest the composite powder of the present invention comprising a particulate compound selected from the group consisting of an amorphous titanosilicate particulate compound, an A-type zeolite particulate compound and an X-type zeolite particulate compound, as presently claimed.

Williamson, Sekine and Lisenko, when considered alone or in combination, fail to disclose or suggest a composite adsorbent in accordance with the present invention comprising, as separate and distinct components, a composite powder and at least one adsorptive substance. These references also fail to disclose or suggest the composite powder of the present invention comprising a particulate compound selected from the group consisting of an amorphous titanosilicate particulate compound, an A-type zeolite particulate compound and an X-type zeolite particulate compound, as presently claimed. Therefore, Williamson, Sekine and Lisenko fail to anticipate or render obvious the presently claimed composite absorbent.

Withdrawal of these grounds of rejection is respectfully requested.

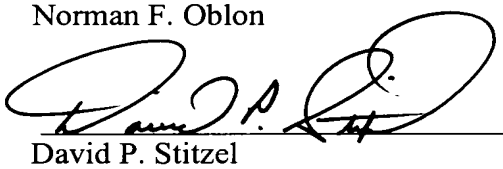
Applicants acknowledge that references AP (JP 2-233140), AQ (JP 4-126154), and AR (JP 48-007051) cited on the Information Disclosure Statement submitted April 25, 2005, have not been considered on the ground that neither an English translation, nor an explanation of the relevance, of these documents has been provided. Pursuant to MPEP § 609.04(a)(III), the English language equivalent of the International Search Report of International patent application PCT/JP03/13759, which was submitted on April 25, 2005, indicates that these references have an "X" relevancy, thereby satisfying the requirements of 37 C.F.R. § 1.98(a)(3)(i). Applicants respectfully request that the Examiner acknowledge consideration of these references by providing Applicants with an initialed copy of the PTO-1449 Form submitted on April 25, 2005, at the Examiner's earliest convenience. A copy of this PTO-1449 Form is appended herewith for the Examiner's convenience.

Upon a determination that the product claims drawn to the elected invention are found allowable, method claims drawn to the non-elected invention should be rejoined and examined for patentability, pursuant to MPEP § 821.04 and *In re Ochiai*, 37 USPQ2d 1127 (Fed. Cir. 1995). Pursuant to MPEP § 803.02, upon a determination that the elected species is found allowable, examination must necessarily be extended to include other non-elected species within the Markush group until either all of the non-elected species within the Markush group are likewise found allowable, or prior art is found that anticipates or renders obvious a non-elected species.

In conclusion, Applicants submit that the present application is now in condition for allowance and notification to this effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon



David P. Stitzel
Attorney of Record
Registration No. 44,360

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)